

Overarching Principles for the EESF Finance Committee to Consider

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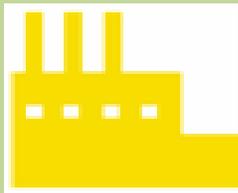


Agenda – Possible Areas for Consideration

- The Problem
- Priorities
- Metrics
- Funding
- Integration
- Education
- Conclusion

The Problem

New Hampshire Heats with:
66% Oil
21% Natural Gas
87% Fossil Fuel



INDUSTRY
25%
NH = 9%



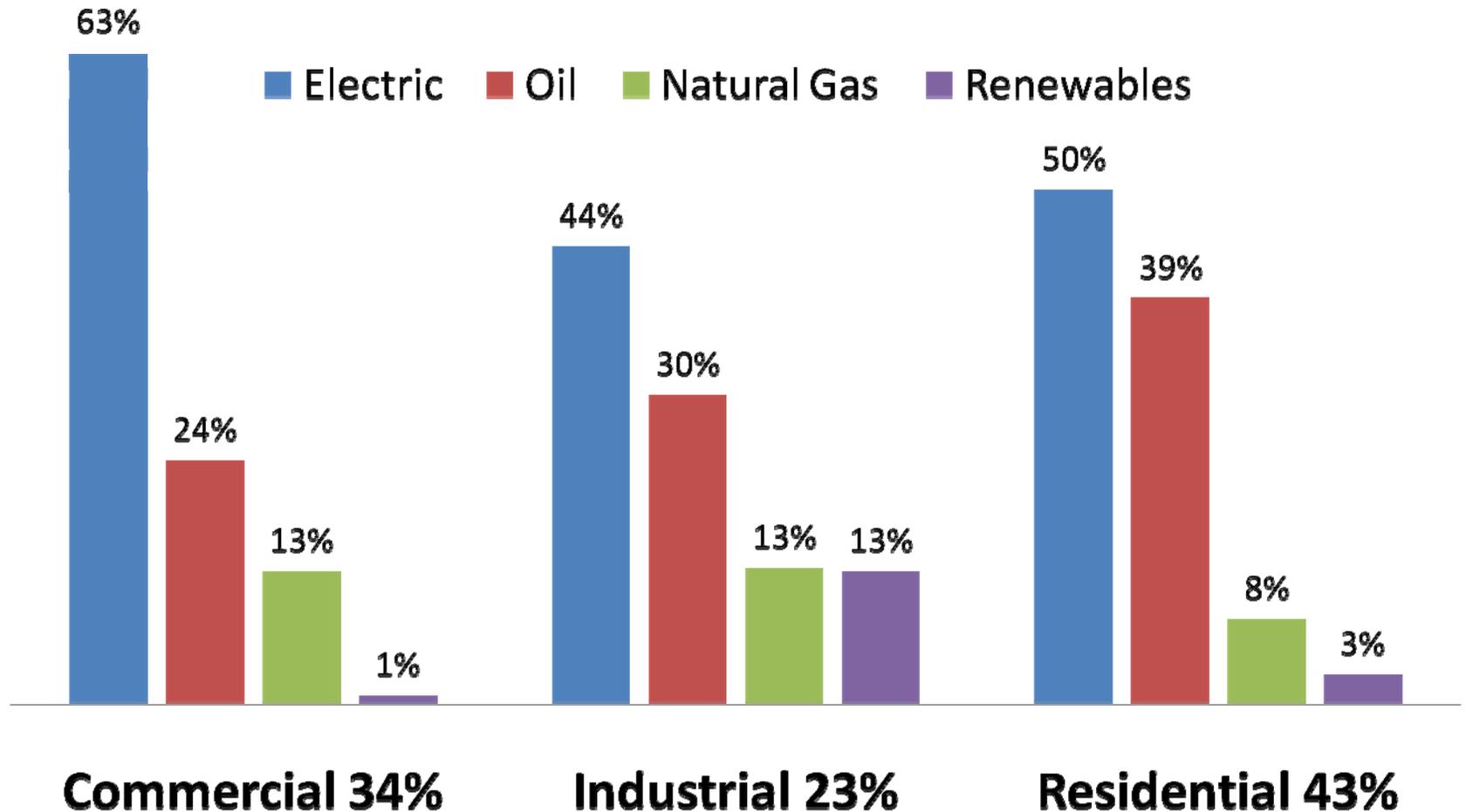
TRANSPORTATION
27%
NH = 31%



ALL BUILDINGS
48%
NH = 60%

Fossil Fuel Emissions: US & **New Hampshire**

2005 NH Non-Transportation Energy Use % by Sector & Fuel Type



Priorities

- Secure All Cost Effective Conservation, Energy Efficiency, and Renewables.
 - Can't buy long term energy contracts but you can do DSM & some renewables @ set price
- Do Conservation and Energy Efficiency First
 - Then provide funds for Renewables
- Prioritize Projects by GHG Reductions (CO₂e),

Priorities - continued

- Use Public Dollars to leverage Private Dollars
- Increase Skill base of Work Force commensurate with jobs and their availability
- Address Distribution Constraints as part of EE make this legal in New Hampshire

Metrics

- Use Home Energy Rating System (HERS) for residential
- Develop Commercial equivalent CERS ?
- Create priority implementation lists for each building type
 - Counter vendor hype
- Need more aggressive goal than Energy Star,
 - 2030 Challenge
 - Passive House
 - Affordable Comfort Institute 1,000 home goal

Metrics - continued

- Create Clear Performance Objectives that are measurable
 - To participate you must agree to allow continued measurement of Installed Measures
- Third party measurement before and after
 - Peer review, blower door, infrared, HERS
- Highlight both successes and failures
- Metric screens should identify
 - Carbon reductions, Cost savings, and Jobs

Metrics – continued

- Define “Cost Effective” based on:
 - Annual Energy Inflator
 - Greenhouse Gas reduction (cost of CO₂e/ton)
 - Job Creation
- List Cost effective measures by sector – C,I,R
 - Conservation
 - Energy Efficiency
 - Renewables
- Create ubiquitous Fuel Comparison Calculators with Cost, Carbon, and Jobs

Sample Calculator

This Shows Energy Prices as of March 9, 2009

Fuel Type	Fuel Unit Cost	Fuel Unit of Meas.	Efficiency of Heating Unit	Price per Million BTU	Units	Btus per Unit
Fuel Oil (No.2)*	2.18 \$	Gallon	80%	\$19.61	Btu/gal	138,800
Natural Gas* 1st Tier	1.40 \$	Therm	95%	\$14.31	Btu/gal	103,000
Natural Gas* 2nd Tier	1.27 \$	Therm	95%	\$12.97	Btu/gal	103,000
Propane*	2.75 \$	Gallon	95%	\$31.74	Btu/gal	91,200
Electricity*	0.16 \$	kWh	99%	\$47.35	Btu/Kwh	3,413
Wood Pellets	\$225.00	Ton	90%	\$15.63	Btu/ton	16,000,000
Wood Chips	59.00 \$	Ton	80%	8.65 \$	Btu/ton	8,528,000
Kerosene*	2.87 \$	Gallon	80%	\$26.59	Btu/ton	135,000
Geothermal	0.16 \$	kWh	250%	\$19.27	Btu/Kwh	3,413

Funding

- Sliding scale of support commensurate with degree of savings
- Line up Jobs & Money to create more private demand beyond just public funding i.e. move on to middle class homes
- Harness Equity Markets and remove Barriers
 - Use Public Dollars to Buy down risk for “conventional bank” loans
- **Power** Integration

Integration

- Avoid Duplication of Programs, Talent, and Money
- Do not penalize Utilities
 - Need to be partners in integration
- Protect Vendors from failure of “right sized” elements – through bonding.
 - Keep it small

Education

- Create ubiquitous Fuel Comparison Calculators with Cost, Carbon, and Jobs
- Eliminate the “priesthood” of vendors
 - Windows & Controls are not the only answer nor are they the first answer.
- Develop Training Vertically – reach
 - Architects
 - Engineers
 - Builders
 - Developers
 - Owners etc.

Conclusion - Develop Screens

- These ideas once we settle on them can be developed into Screens for each Sector and for each building type.
- These screens can be periodically updated as we learn from experience.